



# AIRWORTHINESS DIRECTIVE

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*This Airworthiness Directive (AD) is issued pursuant to Canadian Aviation Regulation (CAR) 521.427. No person shall conduct a take-off or permit a take-off to be conducted in an aircraft that is in their legal custody and control, unless the requirements of CAR 605.84 pertaining to ADs are met. Standard 625 - Aircraft Equipment and Maintenance Standards Appendix H provides information concerning alternative means of compliance (AMOC) with ADs.*

**Number:**

CF-2020-28

**Effective Date:**

28 August 2020

**ATA:**

32

**Type Certificate:**

A-142

**Subject:**

Landing Gear – Nose Wheel Steering System – Un-Commanded Nose Wheel Deviation

**Replacement:**

Supersedes AD CF-2013-38, issued 28 November 2013.

**Applicability:**

De Havilland Aircraft of Canada Limited (formerly Bombardier Inc.) model DHC-8-401 and -402 aeroplanes, serial numbers 4001 and 4003 through 4608.

**Compliance:**

Within 4000 flight hours or 18 months, whichever occurs first, from the effective date of this AD, unless already accomplished.

**Background:**

During a design review, it was determined that several failure modes may potentially cause the loss of feedback from both rotary variable differential transformers (RVDTs) to the steering control unit (SCU). This condition, if not corrected, could lead to nose wheel steering (NWS) runaway and loss of directional control of the aeroplane.

This AD mandates the incorporation of the redesigned NWS system to eliminate the potential for an unintended steering command being generated by the SCU, to address the above-mentioned unsafe condition.

**Corrective Actions:**

Perform the modifications to the NWS system in accordance with paragraph 3B in the Accomplishment Instructions of De Havilland Aircraft of Canada Limited Service Bulletin (SB) 84-32-162, Revision B, dated 13 November 2019, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.

Compliance with earlier revisions of De Havilland Aircraft of Canada Limited SB 84-32-162, prior to the effective date of this AD, also satisfies the requirements of this AD.

**Authorization:**

For the Minister of Transport,

ORIGINAL SIGNED BY

Daniel Gosselin  
Acting Chief, Continuing Airworthiness  
Issued on 14 August 2020

**Contact:**

Craig McAllister, Continuing Airworthiness, Ottawa, telephone 888-663-3639, facsimile 613-996-9178 or e-mail [AD-CN@tc.gc.ca](mailto:AD-CN@tc.gc.ca) or any Transport Canada Centre.